

L11 ANSWER 1 OF 2 CAPLUS COPYRIGHT 2006 ACS on STN  
AN 1993:538717 CAPLUS  
DN 119:138717  
TI Preparation of 2,2-dibromo- or dichloro-1,1,1,3,3-hexafluoropropane  
IN Aoyama, Hiroichi; Seki, Eiji; Koyama, Satoru  
PA Daikin Ind Ltd, Japan  
SO Jpn. Kokai Tokkyo Koho, 3 pp.  
CODEN: JKXXAF

DT Patent  
LA Japanese  
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 05097723	A2	19930420	JP 1991-260347	19911008
PRAI JP 1991-260347		19911008		

OS CASREACT 119:138717

AB The title compds., useful as intermediates for foaming agents, solvents, and refrigerants (no data), are prepared by **isomerization** of CF<sub>2</sub>BrCFBrCF<sub>3</sub> (I) or CF<sub>2</sub>Cl<sub>1</sub>CFCl<sub>1</sub>CF<sub>3</sub> in presence of AlCl<sub>x</sub>FyBrz (0 ≤ x, y, z < 3; x + y + z = 3) catalysts. I containing 10% CFBr<sub>2</sub>CF<sub>3</sub> was refluxed with AlCl<sub>3</sub> for 5 h to give 98% CF<sub>3</sub>CBr<sub>2</sub>CF<sub>3</sub>.

IT 1652-80-8P, 2,2-Dichloro-1,1,1,3,3-hexafluoropropane  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of, by **isomerization** with aluminum halide catalysts)

RN 1652-80-8 CAPLUS

CN Propane, 2,2-dichloro-1,1,1,3,3-hexafluoro- (9CI) (CA INDEX NAME)

F<sub>3</sub>C—CCl<sub>2</sub>—CF<sub>3</sub>

L11 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2006 ACS on STN  
AN 1990:6948 CAPLUS

DN 112:6948

TI Preparation of perhalogenated chlorofluoropropanes by halogen exchange in the liquid and vapor phases and their **isomer** analyses by fluorine-19 NMR spectroscopy

AU Kvicala, J.; Paleta, O.; Dedek, V.

CS Dep. Org. Chem., Inst. Chem. Technol., Prague, 16628, Czech.

SO Journal of Fluorine Chemistry (1989), 43(2), 155-75

CODEN: JFLCAR; ISSN: 0022-1139

DT Journal

LA English

OS CASREACT 112:6948

AB The liquid-phase fluorination of pantachlorotrifluoropropane (I) and tetrachlorotetrafluoropropane (II) of defined **isomer** composition at atmospheric or autogenous pressure by means of the Henne-Swarts reagent yielded from 60% to 70% of II and trichloropentafluoropropane (III). The vapor-phase fluorination of I-III with hydrogen fluoride catalyzed by ferric salts on a charcoal support afforded chlorofluoropropanes II and III in addition to dichlorohexafluoropropane in a yield of 13.5% to 79%. Simultaneously an **isomerization** reaction took place in some cases. The **isomer** compns. of the starting substances and products were determined by means of <sup>19</sup>F NMR spectroscopy. The NMR data of the **isomers** are given and compared with the chemical shifts calculated using the published empirical method.

IT 1652-80-8

RL: PROC (Process)  
(fluorine-19 NMR of)

RN 1652-80-8 CAPLUS

CN Propane, 2,2-dichloro-1,1,1,3,3-hexafluoro- (9CI) (CA INDEX NAME)

F<sub>3</sub>C—CCl<sub>2</sub>—CF<sub>3</sub>

L13 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2006 ACS on STN  
AN 2004:534048 CAPLUS  
DN 141:89877  
TI Materials and methods for the conversion of hydrofluorocarbons to fluoromonomers  
IN Iikubo, Yuichi; Hedrick, Vicki; Brandstadter, Stephen M.; Cohn, Mitchel  
PA USA  
SO U.S. Pat. Appl. Publ., 11 pp.  
CODEN: USXXCO  
DT Patent  
LA English  
FAN.CNT 1

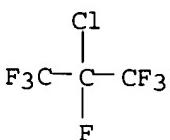
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE	
PI	US 2004127757	A1	20040701	US 2002-331821	20021230	
	CA 2511887	AA	20040722	CA 2003-2511887	20031230	
	WO 2004060842	A1	20040722	WO 2003-US41851	20031230	
	WO 2004060842	C1	20041021			
		W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
		RW:	BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
		AU 2003303566	A1	20040729	AU 2003-303566	20031230
		EP 1581468	A1	20051005	EP 2003-815021	20031230
		R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK			
		CN 1732140	A	20060208	CN 2003-80108107	20031230
	JP 2006512392	T2	20060413	JP 2004-564959	20031230	
	US 2005288536	A1	20051229	US 2005-218055	20050831	
PRAI	US 2002-331821	A	20021230			
	WO 2003-US41851	W	20031230			

AB Methods and materials for the recovery of valuable hydrofluorocarbons and subsequent conversion to fluoromonomer precursors and fluoromonomers are disclosed. More specifically methods and materials are provided for recovering hydrofluorocarbons such as HFC-227, HFC-236, HFC-245, HFC-125, HFC-134, HFC-143, HFC-152, HFC-32, HFC-23 and their resp. **isomers**. Processes are provided for converting hydrofluorocarbons such as these to fluoromonomer precursors such as CFC-217, CFC-216, CFC-215, CFC-115, CFC-114, CFC-113, CFC-112, HCFC-22, CFC-12, CFC-13 and their resp. **isomers**. Materials, methods, and schemes are provided for the conversion of these fluoromonomer precursors to fluoromonomers such as HFP, PFP, TFP, TFE, and VDF. One example demonstrates the conversion of HFC-227 to CFC-217 and finally to hexafluoropropene.

IT 76-18-6P, R 217Ba  
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)  
(CFC 217ba, fluoromonomer precursor; materials and methods for conversion of hydrofluorocarbons to fluoromonomer precursors and fluoromonomers)

RN 76-18-6 CAPLUS

CN Propane, 2-chloro-1,1,1,2,3,3-heptafluoro- (9CI) (CA INDEX NAME)



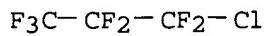
IT 422-86-6P, CFC 217

RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)

(fluoromonomer precursor; materials and methods for conversion of hydrofluorocarbons to fluoromonomer precursors and fluoromonomers)

RN 422-86-6 CAPLUS

CN Propane, 1-chloro-1,1,2,2,3,3,3-heptafluoro- (9CI) (CA INDEX NAME)



(FILE 'HOME' ENTERED AT 15:52:39 ON 12 MAY 2006)

FILE 'REGISTRY' ENTERED AT 15:54:30 ON 12 MAY 2006

L1        0 S 2,2,-DICHLORO-1,1,1,3,3,3-HEXAFLUOROPROPANE/CN  
L2        1 S 2,2-DICHLORO-1,1,1,3,3,3-HEXAFLUOROPROPANE/CN  
L3        1 S 2-CHLORO-1,1,1,2,3,3,3-HEPTAFLUOROPROPANE/CN  
L4        0 S 2,3-DICHLORO-1,1,1,2,3,3-HEXAFLUOROPROPANE/CN  
L5        1 S 1,2-DICHLORO-1,1,2,3,3-HEXAFLUOROPROPANE/CN

FILE 'CAPLUS, CAOLD' ENTERED AT 16:01:08 ON 12 MAY 2006

L6        64 S L2  
L7        20 S L6 AND 5  
L8        4 S L7 AND CHROMIUM

FILE 'REGISTRY' ENTERED AT 16:10:48 ON 12 MAY 2006

L9        1 S 1-CHLORO-1,1,2,2,3,3,3-HEPTAFLUOROPROPANE/CN  
L10      0 S L7 AND ISOMER?

FILE 'CAPLUS, CAOLD' ENTERED AT 16:12:56 ON 12 MAY 2006

L11      2 S L7 AND ISOMER?  
L12      14 S L3 AND L9  
L13      1 S L12 AND ISOMER?  
L14      5 S L7 AND RATIO  
L15      5 S L14 NOT L11  
L16      1 S L15 AND CATALYST  
L17      4 S L15 NOT L8  
L18      4 S L17 NOT L16  
L19      16601 S ?CHLOROFUORO?  
L20      498 S L19 AND ISOMER?  
L21      107 S L20 AND CATALYST  
L22      2 S L21 AND PURITY  
L23      5343 S ?FLUORO? AND ISOMERIZATION